

11

POOR PERFORMERS: SUPERVISORS' AND SUBORDINATES' RESPONSES

AD A128747

Daniel R. Ilgen
Purdue University

Terrence R. Mitchell and James W. Frederickson
University of Washington

DMC FILE COPY



U. S. Army

4

Research Institute for the Behavioral and Social Sciences

June 1981

Approved for public release, distribution unlimited.

**U. S. ARMY RESEARCH INSTITUTE
FOR THE BEHAVIORAL AND SOCIAL SCIENCES**
**A Field Operating Agency under the Jurisdiction of the
Deputy Chief of Staff for Personnel**

JOSEPH ZEIDNER
Technical Director

FRANKLIN A. HART
Colonel, US Army
Commander

Research accomplished under contract
for the Department of the Army

Purdue Research Foundation

NOTICES

DISTRIBUTION: Primary distribution of this report has been made by ARI. Please address correspondence concerning distribution of reports to: U. S. Army Research Institute for the Behavioral and Social Sciences, ATTN: PERI-TP, 5001 Eisenhower Avenue, Alexandria, Virginia 22333.

FINAL DISPOSITION: This report may be destroyed when it is no longer needed. Please do not return it to the U. S. Army Research Institute for the Behavioral and Social Sciences.

NOTE: The findings in this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

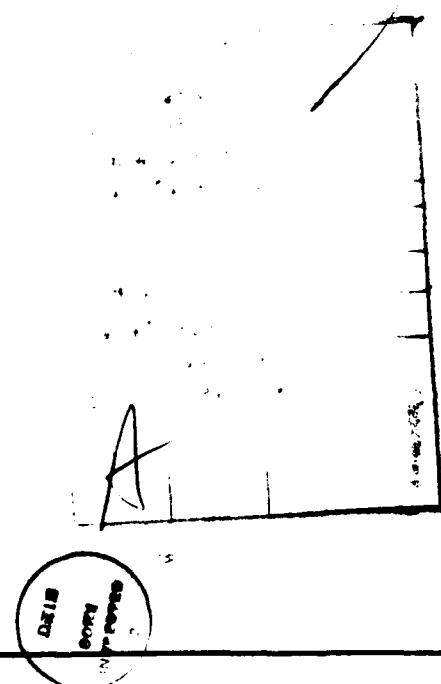
REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER Technical Report 517	2. GOVT ACCESSION NO. 10 1117	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) POOR PERFORMERS: SUPERVISORS' AND SUBORDINATES' RESPONSES		5. TYPE OF REPORT & PERIOD COVERED Technical Report
		6. PERFORMING ORG. REPORT NUMBER --
7. AUTHOR(s) Daniel R. Ilgen, Purdue University; and Terrence R. Mitchell and James W. Frederickson, University of Washington		8. CONTRACT OR GRANT NUMBER(s) MDA 903-78-G-0005 MDA 903-79-C-0543
9. PERFORMING ORGANIZATION NAME AND ADDRESS Purdue Research Foundation, Division of Sponsored Programs, Hovede Hall, West Lafayette, IN 47904		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS 2Q161102B74F
11. CONTROLLING OFFICE NAME AND ADDRESS U.S. Army Research Institute for the Behavioral and Social Sciences 5001 Eisenhower Ave., Alexandria, VA 22333		12. REPORT DATE June 1981
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) --		13. NUMBER OF PAGES 51
		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE --
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) --		
18. SUPPLEMENTARY NOTES --		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Job performance Power Poor performers Performance feedback Job interdependence Supervisors' responses Task performance Interaction of power and feedback Supervisor		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This report is second in a series entitled "The Effective Use of Feedback in Organizational Settings: A Process Centered Approach." Forty-two three- or four-person groups with appointed supervisors worked on a clerical task for three 10-minute sessions and received feedback on their performance. Supervisors evaluated subordinate performance and provided feedback for the subordinates. Four variables were manipulated in a two-phased study. These were the supervisor's influence over subordinate pay (high power), the degree		
(continued)		

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

Item 20 (continued)

) of interdependence between supervisors and their subordinates (high and low), the nature of feedback to subordinates (general, specific with a focus on quantity, and specific with a focus on quality), and the level of subordinate performance reported to the supervisor. It was found that the responses of supervisors toward subordinates were influenced by both the level of subordinate performance and by the degree of interdependence. Subordinates, on the other hand, were influenced by the leader's power as it interacted with the nature of the feedback. These influences were entirely upon attitudes and beliefs; they did not influence performance on the task after feedback.



ii

Unclassified
SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

POOR PERFORMERS: SUPERVISORS' AND SUBORDINATES' RESPONSES

Daniel R. Ilgen
Purdue University

Terrence R. Mitchell and James W. Frederickson
University of Washington

T. Owen Jacobs, Contracting Officer's Representative

Submitted by:
Robert M. Sasmor
Director, Basic Research

Approved by:
Joseph Zeidner
Technical Director

U.S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES
5001 Eisenhower Avenue, Alexandria, Virginia 22333

Office, Deputy Chief of Staff for Personnel
Department of the Army

June 1981

Army Project Number
2Q161102B74F

Basic Research in
OE Technology Development

Approved for public release; distribution unlimited.

ARI Research Reports and Technical Reports are intended for sponsors of R&D tasks and for other research and military agencies. Any findings ready for implementation at the time of publication are presented in the last part of the Brief. Upon completion of a major phase of the task, formal recommendations for official action normally are conveyed to appropriate military agencies by briefing or Disposition Form.

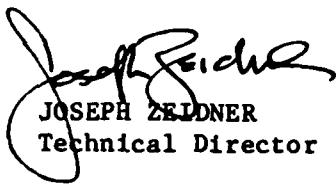
FOREWORD

The Leadership and Management Technical Area of the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) has developed and is executing an extensive program of research to increase the efficiency and operational effectiveness of Army organizations. A major element of this program is the development of improved group and unit leadership.

The present report is a product of the Organizational Effectiveness Technology Development Team. It is one of a series of reports produced at Purdue University under the direction of Dr. Daniel Ilgen. The objective of this research is to investigate aspects of performance feedback that produce either positive or negative outcomes in terms of subsequent performance.

Findings of this and other reports in this series show that process aspects of feedback have consistently influenced the accuracy and effectiveness of the communication to the subordinate. These and other findings from the Leadership and Management Technical Area research program are combining to form the technology base for improving leader effectiveness.

This report was prepared under Army Project 2Q161102B74F under contract with Purdue University, under the title "The Effective Use of Feedback in Organizational Settings: A Process Centered Approach."



JOSEPH ZELDNER
Technical Director

ACKNOWLEDGMENT

We wish to thank Lynn Gauche for her valuable help as an assistant experimenter.

The research was supported by grant numbers MDA 903-78-G-0005 and MDA 903-79-C-0543 from the U.S. Army Research Institute for the Behavioral and Social Sciences. While the support of the agency is appreciated, the ideas expressed herein are solely those of the authors and are not to be considered the position of the agency or the U.S. Army.

POOR PERFORMERS: SUPERVISORS' AND SUBORDINATES' RESPONSES

BRIEF

Requirement:

Poor subordinate performance is a detriment to group performance. As such, it poses a requirement for the leader to evaluate performance and provide feedback to the subordinate to improve performance. However, the type of feedback and the manner in which it is presented have been shown to powerfully influence the subordinate's reaction. In many cases, inappropriate form and manner lead to an absence of favorable impact. The present research investigates the effect of apparent supervisory power and specificity of feedback content on subordinate perceptions of the feedback, perceptions of the supervisor, and efforts to perform better.

Approach:

Forty-two groups of three or four persons each performed a laboratory task. Appointed supervisors were provided standard (faked) performance information about subordinates, and subordinates were provided standard (faked) performance feedback that was either general in nature or specific with suggestions for improvement. A further manipulation was subordinates' perceptions of supervisors' power to influence their financial outcomes, and supervisors' perceptions of their dependence on group outcomes for their own financial outcomes.

Findings:

Supervisors attributed higher ability and higher effort to higher performers. They also rated high performers as more pleasant and easier to work with, although no cues supported this impression. When supervisors thought they were dependent on group outcomes, they showed a slight but consistent trend toward evaluating poor performers more favorably. This, and the ratings on pleasantness and ease of working relationships, showed that supervisor reactions about performance generalize to produce affective judgments about subordinates that are not based on factual experience.

Subordinate performance was not influenced by supervisor feedback. This was not unexpected, since the feedback was standardized (faked) for purposes of experimental control. However, characteristics of the feedback did produce significant impact on subordinate perceptions. Specific feedback with suggestions for improvement was seen as being more helpful and was received more positively. Further, such feedback created more favorable impressions of the supervisor and the attributions of higher expertise to the supervisor. After receiving specific feedback (as opposed to general), subordinates also reported more effort on the next trial, although there was no measurable check to confirm this. Finally, there was a trend for lowered

perceptions of the supervisor when he or she was perceived to have higher power but gave general feedback.

Utilization of Findings:

These results indicate that, in general, performance feedback that is specific in nature tends to produce more favorable evaluations of the supervisor and his or her expertise and subjective impressions of greater effort to do well. The results also show a strong tendency for supervisors to form subjective (i.e., affective) evaluations about subordinates based on reported performance but lacking any other basis. This bias may adversely influence the performance feedback process. The findings from this and other reports in this series should be used to design performance counseling training for supervisors.

POOR PERFORMERS: SUPERVISORS' AND SUBORDINATES' RESPONSES

CONTENTS

	Page
INTRODUCTION	1
Supervisor Evaluation and Responses	1
Subordinate Responses	2
Purpose of the Research	3
METHOD	3
Overview	3
Subjects	3
Procedures	4
Task	4
Manipulations of Independent Variables	4
Phase I Measures	4
Phase II Measures	4
RESULTS	10
Phase I--Superiors' Responses	10
Phase II--Subordinate Responses	13
DISCUSSION	15
Supervisor Responses	15
Subordinate Responses	16
CONCLUSION	17
REFERENCES	19
APPENDIX A: SAMPLE TASK MATERIALS	21
B. QUESTIONNAIRES	23

LIST OF TABLES

Table 1. Performance data given to supervisors	5
2. Performance manipulation effects on ratings of subordinates . .	11
3. Evaluation of the poor performer as a function of high/low interdependence	12

CONTENTS (Continued)

	Page
Table 4. Means for variables across the three feedback conditions . . .	14
5. Interaction effects between leader power and feedback on subordinates' ratings of trying harder after feedback	15

LIST OF FIGURES

Figure 1. Feedback given to subordinates	7
--	---

INTRODUCTION

One of the most difficult problems in performance appraisal concerns the treatment of individuals whose performance is substandard. Effective responses to poor performance are essential if performance appraisal information is to be used to monitor and influence employee performance on the job, or to guide personnel decisions about the training or placement of individuals within organizations. Yet dealing with poor performance is difficult for both the supervisors of poor performers and for the poor performers themselves.

The problem of how to deal with subordinates who are performing poorly has become a more important issue in the current organizational behavior literature. Recent reviews on the topics of punishment (Arvey & Ivancevich, in press), supervision (Fisher, 1979; Green & Mitchell, 1979) and feedback (Ilgen, Fisher, & Taylor, 1979) have emphasized this problem area. The interest in poor performers is due partly to theoretical interest in the problem and partly to practical concerns. For example, firing people has both psychological and financial costs. Likewise, failure to advise or reprimand poor performers results in continued substandard behavior. The purpose of this research was to investigate the problems of (a) how leaders or supervisors react to the poor performer and (b) how feedback from the leader can influence the attitudes and motivation of the poor performer.

Supervisor Evaluation and Responses

We have treated poor performance as a two-phased process. The first phase investigates how supervisors react to poor performance and what factors influence or cause their responses. A recent set of theoretical and empirical papers on this topic has been written by Mitchell and his colleagues (Green & Mitchell, 1979; Mitchell, Green, & Wood, 1980; Mitchell & Wood, 1980). These authors argue that supervisors, when faced with a poor performing subordinate, react in a number of ways. First, they tend to make more internal attributions about the cause of the poor performance than they would if the performance were good. That is, they tend to see poor performance as caused by something internal or personal about the subordinate (e.g., relating to effort or ability). Second, a specific instance of poor performance is likely to influence several other factors. For example, an incident of poor performance is likely to influence the feedback the supervisor gives, the supervisor's expectations about future performance, and various recommendations that he or she makes with reference to the subordinate (e.g., send to training, use close supervision). One purpose of the following research was to show the broad range of factors that are influenced by a supervisor's perception of a subordinate's poor performance.

Another issue in this first phase is that several factors influence how severely the supervisor will react to poor performance. Mitchell and Wood (1979), for example, showed that the more severe the outcome of the

poor performance (even though the subordinate had no control over the outcome), the more punitive the supervisor's response. Also, apologies on the part of the subordinate seemed to lessen the severity of the response. One factor suggested in the theoretical papers by Mitchell and Green (1978) and Green and Mitchell (1979) was that the supervisor's interdependence with the subordinate might be important. More specifically, if the supervisor is dependent on the subordinate in some way (i.e., the subordinate's performance reflects back on the supervisor in the form of rewards or evaluations), then he or she is going to want this subordinate to look good; the better the subordinate looks, the better the supervisor looks. We set out to test this interdependence hypothesis in the following research.

Subordinate Responses

To have some impact on a subordinate's behavior, the supervisor must respond in some way to the behavior of the subordinate. Typically this response is some form of feedback provided to the subordinate. Ideally, the poorly performing subordinate will alter his or her behavior in such a way that will improve performance. Therefore, the second phase of the response to poor performance focuses upon the subordinate. Specifically, we must know how the poor performer reacts to feedback that states that performance was substandard.

Ilgen et al. (1979) identified several characteristics of feedback settings that influence responses to it. In particular, they stressed that performance feedback is a complex combination of the feedback source paired with the nature of the feedback message itself. First, with respect to interpersonal sources, one of the most salient features of the source is his or her power over the rewards and sanctions received or anticipated by the subordinate (Ilgen et al., 1979). Yet in spite of its salience, it is uncertain from the literature exactly how power will interact with feedback to influence responses to it. For example, the literature on organizational communication implies that it may be difficult to accurately communicate negative feedback across levels in the organization (Maier, Hoffman, & Read, 1963; Porter & Roberts, 1976). In fact, Hackman and Lawler (1971) found little or no agreement between superiors and subordinates on the amount and type of feedback available to the subordinate. Given the fact that presence or absence of feedback is less sensitive than is the level of evaluation (i.e., the extent to which performance is good or bad) we would expect that there would be little agreement about the degree of poor performance between individuals who have differential power. Therefore, a major purpose of the second phase of the research was to investigate the effect of supervisory power on the subordinate's response to negative feedback.

In addition to the source, the nature of the feedback message itself affects the recipient. Ilgen et al. (1979) identified several major dimensions of feedback. The two most important dimensions were the sign of the feedback (whether positive or negative) and its specificity. Since for poor performers the feedback sign is held constant (negative), its specificity should be a very salient feature. In particular, more specific feedback should be better accepted, more useful in guiding future responses, and less easily denied than general feedback.

Purpose of the Research

The present research was designed to explore reactions to poor performance by investigating the reactions of both superiors and subordinates to the subordinates' performance. Specifically, the performance of subordinates and the degree of interdependence between the supervisor and his or her subordinates were manipulated. This was done to address the first phase of the research, which focused on the treatment of poor performers. The second phase of the research focused on the subordinates by independently varying the supervisor's reward power and the specificity of feedback given to subordinates to explore the impact of these manipulations upon subordinate reactions to the feedback and to the supervision.

METHOD

Overview

One person in each of the 42 groups assumed the role of a supervisor, and the other persons assumed the roles of subordinates. All groups were to be composed of a supervisor and three subordinates, but in cases in which one person in the group was absent, only two subordinates were used. The subordinates performed a catalog ordering task that required several numerical manipulations and calculations. After a brief orientation was given to both supervisors and subordinates in a specific workroom, the supervisors moved to an adjacent room. Subordinates worked on the task for several work periods and supervisors scored and reacted to work samples ostensibly taken from the subordinates.

Subjects

One hundred fifty-three undergraduate students participated in the experiment as supervisors or subordinates. The supervisors were all males recruited from upper level management courses in the business school by offering a monetary incentive. Subordinates were students in an introductory psychology course (65 females and 45 males) who received academic credit and monetary reward for their participation.

Procedures

Subordinates and superiors making up no more than two work groups at any given time reported to an assigned room. Subordinates were randomly assigned to work stations, which contained all necessary task materials, and supervisors were seated in their designated locations. As a result of recruiting materials, supervisors were aware that they were to supervise the work of others and that they would receive a minimum of \$5 for approximately 1½ hours of their time. Subordinates were aware only of the time requirement and the fact that they would be given course credit for participation.

In the initial introduction that followed the arrival of all subjects, the experimenter informed the subjects that we were interested in the behaviors of people working on a clerical task and described the general

procedures to be followed. Following the overview, an explicit explanation of the task was provided in which both the supervisors and the subordinates completed a few sample exercises until they understood the task. This was followed by the administration of the experimental manipulations of supervisory power and interdependence. More detailed descriptions of the task and experimental manipulations are provided later.

After the introductory procedures were completed, the experimenter took the supervisors to another room, which was set up as an office. Subordinates remained in the workroom and were started on the first of four 10-minute work periods by an assistant experimenter. At the end of each of the work periods, the experimenter, who had returned from the supervisors' office, collected all work completed during the session from each subordinate and then started the next 10-minute work period. Between the third and the fourth periods, subordinates took a 10- to 15-minute break, ostensibly to allow the supervisors to finish evaluating their work and to provide feedback. At the end of the break, the experimenter delivered copies of performance feedback to each subordinate. After the subordinates had had time to read the feedback, the last work session was started. Upon completion of this session, post-work-session questionnaires were completed. Finally, the leaders returned to the workroom and all subjects were debriefed.

When the supervisors left the room and reported to their office, the experimenter reiterated the interdependence manipulation and explained how to score subordinate worksheets. Then the experimenter left the room and returned after each 10-minute work session with completed work supposedly from the three subordinates. Supervisors evaluated and recorded the quantity and quality of the work of each subordinate. Following the fourth work period, supervisors completed a questionnaire that contained items dealing with evaluations and reactions to each of the subordinates. Upon completion of this questionnaire, the supervisors returned to the workroom for debriefing.

Note that the study really represents two separate phases--one dealing with superiors and one dealing with subordinates. The two groups were together only for the initial orientation and for the debriefing. Therefore, we will present much of the material in terms of Phase I, which dealt with the supervisors, and Phase II, which dealt with subordinates.

Task

The task was a clerical one that required subjects to (a) decode a seven-digit alphanumeric number according to a prescribed code, (b) look up the decoded number in a catalog that listed the price of the item, (c) calculate a 10% discount from the price, and (d) record the discounted price on the order form. Sample tasks appear in Appendix A. Order forms were standard-sized computer output sheets with five uncoded order numbers listed in the upper-left quadrant of the worksheet. The order numbers were paired with a page number from the catalog on which the decoded item and price could be found. In the lower-left quadrant of the sheet were five lines on which to record the discounted prices. The right-hand half of the sheet was blank, allowing the subject room to calculate the discounts. Each subordinate was given a stack of order sheets in excess of the number that could be completed in the time allowed. When one order sheet was completed, the

subordinate immediately began the next one. At the end of the work period, all completed and partially completed order sheets were collected. The task itself was a modification of a task used by Pritchard, Dunnette, and Jorgenson (1972).

Manipulations of Independent Variables

Four variables were experimentally manipulated. Each is described below.

Subordinate Performance. Subordinate performance was manipulated on the worksheets given to the supervisors. To manipulate this variable, the work performed by and gathered from subordinates at the end of each 10-minute period was not taken to the supervisors for evaluation. In its place, order sheets that depicted two subordinates performing well and one performing poorly were delivered to supervisors at the appropriate time intervals. These materials were prepared prior to the experimental session by three people who used pens of different colors to insure that handwriting differences were apparent and that the supervisors consistently paired the poor performance with a particular subordinate.

To create one subordinate who was clearly a poor performer, the number of items completed on each trial and the number of errors made on these trials were manipulated. Table 1 shows these manipulations. Person B was clearly the poor performer, and Person A was slightly better than Person C.

Table 1
Performance Data Given to Supervisors

Work period	Subordinate A		Subordinate B		Subordinate C	
	Items completed	Errors	Items completed	Errors	Items completed	Errors
1	13	0	10	2	10	1
2	16	0	12	2	16	0
3	20	1	15	3	22	1

Supervisor-Subordinate Interdependence. Interdependence was manipulated verbally to all group members in the introductory instructions and emphasized only to supervisors when they received their individual instructions. Low interdependence groups were told that supervisors would be paid a flat fee of \$5 for their participation, while subordinates could earn an additional \$10 if they individually performed in the top 10% of all subordinates performing the task. For high interdependence, all group members, including the supervisor, divided \$40 equally if the group performed in the top 10% of all groups participating in the experiment. Note that in this case, the

supervisor's pay was partially dependent upon his or her subordinates' performance. Since interdependence was believed to be important only to supervisors (i.e., Phase I), the manipulation was administered to them three times--during the initial instructions, when they received their separate instructions from the experimenter, and immediately before they filled out the questionnaire.

Supervisor Power. Power was first manipulated by the initial instructions to the entire group, even though it was of interest only to the subordinates (Phase II). In low-power groups, all subordinates were paid a flat rate of \$4.50 for their participation. Groups with high-power supervisors were told the supervisor could vary the pay for the work session from \$3 to \$6 depending upon his or her evaluation of the subordinate's performance. The power manipulation was heavily emphasized to the subordinates a second time after the supervisors had left the room.

Performance Feedback to Subordinates. Prior to beginning their work for the last period, each of the three subordinates in every group received the same level of feedback but a different form of feedback. The types of feedback were selected so that one subordinate received general feedback, one received specific feedback dealing with quantity, and one received specific feedback dealing with quality. All sets of feedback had one paragraph in which the supervisor supposedly filled in a blank, and one had a written paragraph on that portion of the form reserved for comments from the supervisor. Figure 1 lists the feedback received in each condition.

Phase I Measures

Manipulation Checks. The manipulation checks for Phase I included those measures of interest to the supervisory responses. There were perceptions of the subordinates' level of performance and of interdependence. The performance check required the supervisor to rate the overall performance of each subordinate on a 7-point scale ranging from unsatisfactory to outstanding. We compared only the highest and the lowest performing subordinates and found Subordinate A received a mean rating of 6.78 and Subordinate B a rating of 2.95 ($t = 26.67$, $p \leq .001$), clearly indicating that the performance manipulation was effective. Manipulation check items plus all other questionnaire items were contained in questionnaires for superiors and subordinates. The questionnaires appear in Appendix B.

Supervisors' perceptions of the interdependence between their own financial rewards and the performance of the subordinates was to be checked by an item on the questionnaire administered to superiors. Unfortunately, a clerical error on that item made it impossible to use the data. However, since subordinates were in the room when the interdependence manipulation was first administered, subordinate responses to the manipulation were substituted as a manipulation check. The subordinates' item asked them to rate the following item on a 5-point Likert scale in which 1 was "strongly disagree" and 5 was "strongly agree." The item was, "How much my supervisor earned depended, in part, upon my performance." The mean rating for the high interdependent group was 2.84, and the rating for the low group was 2.07 ($F = 7.20$, $p \leq .01$), thus providing some evidence for the effectiveness of the interdependence manipulation. Given the fact that the interdependence

Recipient of Feedback

Received in All 3
Conditions

As your supervisor, I have completed scoring your work on the first two 10-minute work sessions. To do this, I have counted the number of items (that is, the number of discounted prices) you completed and randomly selected about one-fourth of the items to check them for errors. Comparing your combined speed and accuracy to norms developed on a relatively large group of students like yourself, I found your performance to be somewhat below average.

Specific Conditions Feedback:

General Feedback

This is not very good performance. I have gone back over your work to be sure I did not make a mistake. After checking it over, I find the same thing. You did not do very well compared to others who have worked on this before. However, there is more time. There is time to do better on the last session. Good luck on it.

Specific: Quality

This is not very good performance. In looking back at both the number of prices you completed and the number of errors, your major problem seems to be in the number of errors. Your speed is not bad at all in comparison to others. Perhaps you should check your work more in the blank spaces on the sheets. If you concentrate on accuracy even if it slows you down a little, I think you can definitely do better next time. Good luck.

Specific: Quantity

This is not very good performance. In looking back at both the number of prices you completed and the number of errors you made, your major problem seems to be speed. Your error rate is not bad at all in comparison to others. I suggest you concentrate on working faster and perhaps check your work less carefully. Three things might help. (1) I believe it is faster to decode all 5 order numbers before looking up any prices. (2) Some find it faster to look up prices in the order of the pages in the catalog to avoid flipping back-and-forth. For example, if the first 3 items are on pages 34, 82, and 45, look up 34 for line 1, 45 for line 3, and then 82 for line 2. (3) Look up all prices and then do the discounts on all 5. I believe by working on speed you can do better next time. Good luck.

Figure 1. Feedback given to subordinates.

manipulation was presented less strongly to subordinates, and the fact that it was less relevant to them, this estimate of the effect is probably conservative.

Dependent Variables. The dependent variables of interest in Phase I were related to supervisors' attributions about each subordinate's performance, evaluations of their performance, feedback to subordinates, pay assigned to them, and recommendations to others. Each is discussed in turn.

Attributions were obtained by asking supervisors to evaluate each of their three subordinates on four questions. On 7-point Likert scales, supervisors rated the following items: "Compared to other workers, how much ability at cataloging do you think that this worker has?"; "Compared to other workers, how much effort do you think this worker exerted in cataloging?"; "Compared to other workers, how difficult do you think the task was for this worker?"; and "To what extent do you think this worker's performance level can be attributed to luck or chance circumstance?"

Three measures of subordinate's performance were obtained on scales ranging from unsatisfactory to outstanding. Supervisors evaluated the "Quality of work (competence, accuracy, neatness, thoroughness)," "Quantity of work (use of time, volume of work accomplished, productivity level)," and "Job knowledge (understanding of job procedures and methods)." Supervisors' attitudes toward subordinates were assessed by asking them "How willing would you be to have the workers working for you again?" and "How pleasant or unpleasant was it to supervise this worker?"

As a general measure of feedback, supervisors were asked to select one of six statements to be communicated to each subordinate. The six ranged from "You are certainly performing well. Keep up the good work." to "Your performance is not very good, you really need to put more into it."

The effect of subordinate performance on pay was determined by asking supervisors to "Imagine you can give each worker a bonus or dock his/her pay. The value of these monetary rewards can vary from minus \$1.50 to plus \$1.50. How much do you want each worker to get?" The supervisor responded by writing in an amount for each subordinate on a specified blank.

The final supervisor measure pertained to the recommendations he would make to another supervisor that was allegedly taking over the group. For each subordinate, supervisors rated the extent to which they would "Give a brief training session," "Pay more per hour," and "Watch him/her closely."

Phase II Measures

Manipulation Checks. Phase II focused upon those manipulations relevant to subordinates' reactions to their own poor performance. In this regard, two experimental manipulations were important. These were supervisory power and the nature of the feedback. One item on the subordinate questionnaire checked for supervisor power. It stated, "How much I was paid depended, in part, upon my supervisor's opinion about my performance." The subordinates responded on a 5-point Likert scale, with 1 representing "strongly disagree" and 5 meaning "strongly agree." Mean ratings for the high and low power

conditions were, respectively, 4.10 and 2.15 ($F = 59.77$, $df = 1,101$, $p \leq .001$). The power manipulation was effective.

The three feedback levels were checked with two items that focused on the specificity of the feedback. One was worded such that a high score indicated the feedback was specific and the other such that it indicated that feedback was too general. The means for the specific items were 1.80, 3.75, and 3.95 ($F = 45.41$, $df = 2,106$, $p \leq .001$) for the General, Specific (Quality), and Specific (Quantity) conditions, respectively; and 4.55, 3.06, and 2.29 ($F = 42.96$, $df = 2,106$, $p \leq .001$) for the general item in which 5-point Likert items were used. The feedback manipulation was effective.

Dependent Variables. Two primary sets of dependent variables were of interest. The first set dealt with performance on the catalog ordering task. Two performance measures were obtained. One was the number of catalog items the subordinate completed on the last trial. The second was the number of incorrect items on the last trial. An item was incorrect if the recorded price after the 10% discount was not correctly posted.

The remaining dependent variables were subordinate perceptions obtained from questionnaire measures administered at the completion of the last work period. The items on the questionnaire pertinent to these perceptions were Likert items with five anchors--strongly disagree, disagree to some degree, neither agree nor disagree, agree to some degree, and strongly agree. Items worded in the negative direction were reflected.

The perception measures comprised four classes of variables. The first set dealt with perceptions of the feedback. In this set, one variable measured the extent to which the feedback was seen as helpful, and another dealt with its perceived specificity. Each variable was measured by two items. The correlation between the two helpful items was .80, and the correlation between the specificity items was .83. For both variables, the two items were summed to construct the variable.

The second set of variables focused on perceptions of the supervisor. One variable measured the extent to which the supervisor was helpful; it had four items (Cronbach's alpha = .92). The second focused on the supervisor's ability to judge performance. High scores on this 5-item scale (Cronbach's alpha = .85) indicated that the subordinates believed that their supervisor accurately assessed their performance, and low scores indicated they believed that he was inaccurate.

The third set of perceptions consisted of a single variable that addressed the extent to which the subordinates felt they had tried harder on the task after they had received feedback. This variable was comprised of the sum of three items (Cronbach's alpha = .92).

The final set of variables focused on goal-setting. Single items were used to measure the extent to which subordinates felt they (a) set goals, (b) set specific quantity goals, and (c) set specific quality goals for the fourth work period.

RESULTS

Phase I--Superiors' Responses

Performance Effects. All superiors were presented with information about the performance of subordinates A, B, and C. Subordinate A had the best performance, C was slightly lower, and B was considerably lower. As was the case with the manipulation check on performance, we shall only compare the two extreme cases--A and B.

The perception of B as a poor performer was obvious in all areas measured by the dependent variables. In the attribution area, subordinate A's performance was seen as more likely to be due to more effort and more ability than was subordinate B's. Likewise, task difficulty and luck were seen to have a greater influence on B's performance than A's. The means and t-values for these comparisons appear in Table 2.

When superiors were asked to provide feedback for subordinates, A was told he or she was doing significantly better than B. In addition, superiors recommended that B receive more training and be supervised more closely than A (see Table 2).

Attitudinal reactions to the two individuals also were strongly affected by performance. Person A was seen as significantly more pleasant than B, and the supervisor stated that he would be much more willing to work with A than with B. The pleasantness dimension is particularly interesting because objectively there were no cues relevant to interpersonal factors that differentiated A from B. Clearly, performance factors influenced evaluations which then showed attitude generalization effects (Byrne, 1971).

In the area of performance evaluation, A was seen as producing more and higher quality work and being more knowledgeable than B (see Table 2). Also, when performance was translated into compensation, A was given a much higher bonus than B and was to be paid more.

In summary, being rated a poor performer had implications for a number of areas. The feedback was more negative, as were expectations for future performance. The poor performer is seen not only as being worse on task performance but also as less attractive interpersonally. Finally, compensation was less and the supervisor probably would prefer not to work with the poor performer again. If the superior found it necessary to work with him or her, he or she is likely to supervise the person quite closely.

Interdependence Effects. Support for the hypotheses that the poor performer would be more positively evaluated in the high interdependence condition than in the low interdependence condition was weak but consistent. For the four attribution items, only the ability item reached significance. The high interdependence supervisors saw subordinate B as having more ability than the low interdependent ones. Table 3 presents these means and the comparisons between the means.

In the area of feedback and attitudes, high interdependent leaders tended to be more willing to work with B again and were more likely to recommend training for him or her. However, both of these effects were only marginally significant.

Table 2
Performance Manipulation Effects on Ratings of Subordinates

Items	Mean for subordinate A (high performer)	Mean for subordinate B (low performer)	<u>t</u> value ^a
Attributions			
Ability	6.59	2.88	29.17
Effort	6.38	4.05	9.97
Task Diff.	2.05	5.24	-17.22 ^b
Luck	1.66	2.46	-3.43 ^b
Feedback			
General	1.07	4.34	-18.35 ^b
More training	1.71	.622	-18.25 ^b
Watch closely	1.66	5.17	-13.19 ^b
Attitudes			
Pleasant	6.18	3.67	9.78
Willing to work with	6.93	2.85	18.35
Performance			
Quantity	6.68	2.71	24.01
Quality	6.71	2.85	26.33
Job knowledge	6.85	3.88	14.30
Compensation			
Bonus	141.46	4.02	12.31
Pay more	5.76	2.46	9.02

^ap ≤ .001 for all cases.

^bA low score is a positive rating.

Table 3

Evaluation of the Poor Performer as a Function
of High/Low Interdependence

Items	High	Low	<u>t</u> -value	P-level
	interdependence mean	interdependence mean		
Attributions				
Ability	3.10	2.65	1.82	$\leq .04$
Effort	4.05	4.05		n.s.
Task Diff.	5.19	5.30		n.s.
Luck	2.48	2.45		n.s.
Feedback				
More training	6.48	5.95	1.58	$\leq .06$
Watch closely	5.05	5.30		n.s.
Attitudes				
Pleasant	3.75	3.58		n.s.
Willing to work with	3.14	2.55	1.44	$\leq .08$
Performance				
Quality	2.95	2.45	1.74	$\leq .04$
Quantity	3.05	2.65	1.52	$\leq .07$
Job knowledge	3.91	3.85		n.s.
Compensation				
Bonus	20.95	-13.75	1.60	$\leq .06$
Pay more	2.57	2.35		n.s.

Turning to performance evaluations, two of the three measures were significant but one was only marginally so. From Table 3 we see that the quality of the poor performer's performance was rated higher by supervisors partially dependent on their subordinates for financial rewards; the quantity ratings were in the same direction. Job knowledge ratings, on the other hand, were unaffected by the interdependence manipulation.

Finally, there was also some marginal support in the compensation area. The amount of money recommended for B was higher in the high interdependence group than in the low interdependence group.. Person B received 20.95 cents, on the average, from high interdependent supervisors and was docked 13.75 cents, on the average, by low interdependent ones. The questionnaire item "pay more per hour" was not significantly affected by the manipulation.

In summary, the support for the interdependence hypothesis was weak but consistent. There was some evidence that the poor performer is seen in a slightly more positive light when the leader is dependent on him. Subordinate

performance, ability, and pay are rated more favorably under those conditions than when the leader is not dependent on him or her.

Phase II--Subordinate Responses

In this phase of the research, the attention shifted from the supervisor to the subordinate. The remainder of this section discusses analyses of data obtained from subordinates.

Performance. Two measures of subordinate performance on the catalog ordering task were used. As is evident from Table 4, neither of these variables was significantly affected by the nature of the feedback or by the supervisors' power to influence the financial rewards of the subordinates. Since the same performance data also were collected from the work period immediately preceding feedback (Work Period 3), it was thought that the failure to find significant effects for feedback may have been due to pre-feedback differences among the groups. However, secondary analyses showed this was not the case. The performance measures did not vary systematically across groups on the third work period, nor did the change in performance vary across these two work periods.

Perceptions. Two x three analyses of variance were run on all the perceptual variables described earlier. These analyses showed no main effects for superior power, two power-by-feedback interactions, and seven main effects for feedback.

First, the nature of the feedback affected both perceptions of feedback specificity and the extent to which the feedback was seen as helpful. In a sense, these are both primarily manipulation checks--especially the feedback specificity response. With regard to the helpful response, subordinates who received specific feedback, regardless of whether it focused on quality or quantity, rated the feedback as more helpful than did those who received general feedback.

Perceptions of supervisors also were more positive when the feedback was specific. In one case, specific feedback led subordinates to believe that their superior was doing a better job. In particular, they saw him or her as being more helpful when specific feedback was given. The data with respect to ratings of the supervisor's ability to judge performance imply that supervisors, through the use of specific feedback, can enhance their subordinates' beliefs about their (the supervisors') expertise. Specific feedback led subordinates to feel that the supervisors could judge more legitimately the subordinates' performance than could supervisors who gave only general feedback.

Turning to subordinate effort, those who received specific feedback believed that they worked harder during the work period following the feedback than those who did not. Although this finding is interesting by itself, unfortunately no objective measure of effort existed verifying these beliefs.

Finally, with respect to goals set, only perceptions of setting goals related to quality were affected by the nature of the feedback. For this

Table 4
Means for Variables Across the Three Feedback Conditions

Variable	Feedback condition			F^a	P-level
	General	Quality	Quantity		
Performance					
Items produced during Work Period 4	16.47	14.86	14.76	1.98	n.s.
Errors during Work Period 4	1.45	1.50	2.08	0.85	n.s.
Perceptions of the feedback					
Feedback was helpful	3.87	6.81	6.05	15.81	$\leq .001$
Feedback was specific	3.24	6.34	7.66	57.87	$\leq .001$
Perceptions of supervisor					
Quality of supervision	8.50	13.33	12.74	21.51	$\leq .001^b$
Supervisor's ability to judge performance	8.79	10.46	10.45	8.55	$\leq .001$
Perceptions of effort					
Tried harder after feedback	9.74	11.81	11.39	4.56	$\leq .05^b$
Perceptions of goal setting					
Set specific goals for Work Period 4	2.16	2.25	2.26	0.10	n.s.
Set quantity goals for Work Period 4	3.45	2.94	3.45	2.10	n.s.
Set quality goals for Work Period 4	2.97	3.72	2.68	7.55	$\leq .01^c$

^aDegrees of freedom = 2 and 106 in a 2 x 3 ANOVA unless indicated otherwise.

^bPower x feedback interaction was significant and may affect interpretation of main effects.

^cDegrees of freedom = 2,104.

it was found that those who received specific feedback concerning quality of work reported setting higher quality goals.

For two of the perceptual measures there was some evidence for a power \times feedback interaction. For quality of supervision, the interaction term was marginally significant ($F = 2.87$, $df = 2,106$, $p \leq .06$), and for effort the significance reached the $p \leq .05$ level ($F = 4.01$, $df = 2,106$). In both cases, the combination of high supervisory power and general feedback led to a detrimental effect on perceptions of the two variables (see Table 5).

Table 5

Interaction Effects Between Leader Power and Feedback on Subordinates' Ratings of Trying Harder after Feedback

<u>Dependent variable</u>	<u>Power</u>	<u>Feedback condition</u>		
		General	Quality	Quantity
Quality of supervision	High	7.22	13.65	13.33
	Low	10.16	13.05	12.20
Tried harder after feedback	<u>Feedback condition</u>	General	Quality	Quantity
		8.61	12.24	12.33
	Low	10.75	11.42	10.55

DISCUSSION

Supervisor Responses

The data clearly indicated that the responses of supervisors were strongly influenced by the effectiveness of their subordinates. Replicating the findings of others (Fodor, 1976; Herold, 1977; Lowen & Craig, 1968; Mitchell & Wood, 1979), for low as compared to high performing subordinates, supervisors attributed performance to more negative causes, held more negative attitudes toward them as individuals, indicated they would supervise them more closely, and gave them lower feedback and financial compensation.

Of more interest to us was the effect of interdependence on supervisor responses toward low performers. Although these findings were not

particularly strong, there was a clear trend for supervisors who believed their own rewards were dependent on their subordinates' performance to respond more positively toward subordinates who performed poorly. This was indicated first by the fact that poor performing subordinates were perceived as possessing higher ability if the supervisor was dependent on the subordinate than if he or she were not. Perhaps under such conditions supervisors are unwilling to accept the fact that there is nothing that can be done for the subordinate (and indirectly, for themselves) to increase the possibility of higher financial return. Our confidence in this conclusion is strengthened by the fact that the supervisors tended to be more willing to send poor performers to task-relevant training when interdependence was high and by the fact that they tended to perceive the poor performer's performance as higher in this condition.

The data indicate that supervisors whose own rewards are partially dependent on the level of performance of their subordinates will respond in a more positive and helpful manner toward their subordinates when they fail to perform as desired. That is, we would expect that supervisors in interdependent conditions would be more likely to show helping and facilitating behaviors than punitive and denigrating ones when they feel a subordinate is showing substandard performance. This conclusion is based on the fact that high interdependent supervisors, in comparison to low interdependent supervisors, rated ability higher, tended to recommend training more, and tended to recommend some bonus system, which was a method of dealing with performance through positive motivational procedures.

Our only reservation about this inference is that there are different types of interdependence. More specifically, in our experiment, the leader wanted the group to look good, and it was unclear the extent to which the supervisor believed he or she would suffer because of a subordinate's poor performance. In situations in which the poor performance of the subordinate clearly and unambiguously reflects negatively on the supervisor (either financially or in terms of some reflection of the competence of supervision), we suspect that the supervisor may be more punitive toward the poor performer. This hypothesis should be pursued at another time.

Subordinate Responses

Several attitudes and beliefs of subordinates who believed they performed poorly were affected by the power of the supervisor to control financial rewards and by the nature of the feedback given to them; however, their performance on the task was not affected by these experimental manipulations. The most likely reasons for the lack of effects on performance are the nature of the task and the relatively high motivation level of the participants. The task was a relatively straightforward one that required several steps, but all steps were simple and easily learned, especially for college students. As a result, the task did not allow for a wide range of performance variation within any one individual across time periods. Second, the incentive system was strong enough (a possible \$10 bonus) and the work periods short enough that motivation was high across all periods. The experimenters reported there was almost no non-task-directed behavior observed during the work periods. This also left little room for a feedback effect from trials 3 to 4.

The results of most interest dealt with subordinates' perceptions of their own effort and their judgments about their supervisors. First, with respect to their own effort, subordinates who received specific feedback reported trying harder than those who received general feedback. To the extent that perceived effort corresponds with actual effort, on tasks that allow changes in effort to make major contributions to performance we would predict higher performance under specific feedback conditions. Unfortunately, the present task was limited in this respect. Nevertheless, at the very minimum the report of trying harder in conjunction with the fact that they reported specific feedback was more helpful clearly indicates that the specificity of feedback was noticed and did lead to more positive attitudes and beliefs about it than did general feedback.

The data indicate that, in general, the positive effects of specific feedback generalized to feelings and beliefs about the supervisor. When feedback was specific, the quality of supervision and the expertise of the supervisor were rated as significantly higher. This generalization or spreading effect, similar to that which has been observed for job satisfaction across attitude objects (Cherrington, 1973), is important for supervisors because it indicates that through the nature of feedback supervisors can gain respect in the eyes of their subordinates. At a more theoretical level, the generalization shows that the demarcation between the nature of feedback per se and the source is less distinct than had been implied from previous discussions of feedback. For example, Ilgen et al. (1979) concluded from their review that feedback and the sources of feedback were two separate sets of stimuli that merged to form feedback perceptions. The present data indicate that the merging of the two sets results in changes in the perception of source characteristics that are important for effective feedback and leadership. Although the two sets are conceptually distinct, perceptually they are not to the feedback recipient.

Although the power of the supervisor to control financial rewards did not directly affect subordinate effects, there was one consistent interaction between power and the nature of the feedback. This interaction showed that high-power supervisors who gave general feedback detrimentally affected the perceptions of subordinates. These superiors tended to be seen as offering lower quality supervision, and their subordinates reported trying less than the other subordinates. The most likely explanation is that power created an expectation for more responsible leader behavior and that general feedback was seen as a less responsible way for the supervisor to behave. Power may have raised expectations--expectations that were not met by giving general feedback.

CONCLUSION

In summary, poor performance by subordinates leads to the need for appropriate response from both the supervisor and from the subordinates themselves. Our data show that supervisors respond strongly to poor performance. Further, the appropriateness of their responses is facilitated by conditions that create some degree of interdependence between the supervisors and their subordinates. Under this condition, the supervisors appeared to display behaviors that might in the long run facilitate rather than inhibit the future performance of the subordinates.

On the other hand, the judgments of subordinates about their supervisors, performance feedback, the effort they put forth and, to some extent, the goals they set were influenced by the specificity of the feedback. In all cases, more specific feedback was better received. General feedback was less beneficial overall and was particularly so when paired with high supervisor power. Under high power conditions, the supervisors were seen as least effective, both as supervisors and as an influence on subordinate effort, when feedback was general.

REFERENCES

Arvey, R. D., & Ivancevich, J. M. Punishment in organizations: A review, propositions, and research suggestions. Academy of Management Review, 1980, 5, 123-132.

Byrne, D. E. The attraction paradigm. New York: Academic Press, 1971.

Cherrington, D. J. The effects of a central incentive-motivational state on measures of job satisfaction. Organizational Behavior and Human Performance, 1973, 10, 271-289.

Fisher, C. D. Transition of positive and negative feedback to subordinates: A laboratory investigation. Journal of Applied Psychology, 1979, 64, 533-540.

Fodor, E. M. Group stress, authoritarian style of control, and use of power. Journal of Applied Psychology, 1976, 61, 305-312.

Green, S. G., & Mitchell, T. R. Attributional processes of leaders in leader-member interactions. Organizational Behavior and Human Performance, 1979, 23, 429-458.

Hackman, J. R., & Lawler, E. E. Employee reactions to job characteristics. Journal of Applied Psychology, 1971, 46, 259-286.

Herold, D. M. Two-way influence processes in leader-follower dyads. Academy of Management Journal, 1977, 20, 224-237.

Ilgen, D. R., Fisher, C. D., & Taylor, M. S. Consequences of individual feedback on behavior in organizations. Journal of Applied Psychology, 1979, 64, 349-371.

Lowen, A., & Craig, J. R. The influences of level of performance on managerial style: An experimental object-lesson in the ambiguity of correlational data. Organizational Behavior and Human Performance, 1968, 3, 440-458.

Maier, N. R. E., Hoffman, L., & Read, W. H. Superior-subordinate communication: The effectiveness of managers who hold their subordinates' position. Personnel Psychology, 1963, 16, 1-2.

Mitchell, T. R., & Green, S. G. Leader responses to poor performance: An attributional analysis. Paper presented at the annual meeting of the American Psychological Association, Toronto, Canada, September 1978.

Mitchell, T. R., Green, S. G., & Wood, R. E. An attributional model of leadership and the poor performing subordinate: Development and validation. In B. Staw & L. L. Cummings (Eds.), Research in Organizational Behavior, vol. 3. Greenwich, Conn.: JAI Press, 1980.

Mitchell, T. R., & Wood, R. E. An empirical test of an attributional model of leaders' responses to poor performance. Proceedings of the National Meeting of the Academy of Management, Atlanta, Ga., 1979.

Mitchell, T. R., & Wood, R. E. Supervisors' responses to subordinate poor performance: A test of an attributional model. Organizational Behavior and Human Performance, 1980, 25, 123-138.

Porter, L. W., & Roberts, K. H. Communication in organizations. In M. D. Dunnette (Ed.), Handbook of Industrial and Organizational Psychology. Chicago: Rand McNally, 1976.

Pritchard, R. D., Dunnette, M. D., & Jorgenson, D. O. Effects of perceptions of equity and inequity on worker performance and satisfaction. Journal of Applied Psychology, 1972, 56, Monograph No. 1, 75-94.

APPENDIX A
SAMPLE TASK MATERIALS

Sample Worksheet

ITEM ITEM NO. PAGE NO.

1	5E41130*	49
2	3B67895	24
3	3C92439	25
4	4D77817	37
5	4E80262	38

PRICES

* Code (not included on worksheet)
If the numeral before the letter
is 1, 2 or 3 add one to each
numeral after the letter.
If the numeral when 1 is added
goes over 9, drop all numerals
in the tens column.
If the numeral before the letter
is 4, 5 or 6 add 2.
If the numeral before the letter
is a 7, 8 or 9 add 3.

ITEM	PRICE
5E01129	13.00
5E04460	13.95
5E06823	795.95
5F07834	625.25
5E08240	635.95
5E10186	.55
5E10227	12.25
5E11715	.96
5E11785	.29
5E14035	89.95
5E15647	.95
5E16754	5.75
5F18397	72.50
5E25177	1850.50
5E31418	11.00
5E48714	29.50
5F51729	5.25
5E58865	3.85
5F58988	3.45
5E63352	1734.85
5F64648	700.00
5F67052	13.50
5E72298	82.00
5F73765	89.50
5E78438	725.00
5E81285	1675.50
5E90049	1550.50
5E94284	29.95
5E94565	27.75
5E96747	47.75

APPENDIX B
QUESTIONNAIRES

University of Washington

POST WORK-SESSION
QUESTIONNAIRE

The items in this questionnaire ask you about several things related to your work over the last one to two hours. Please answer all questions honestly. All responses will be kept strictly confidential. You are free to not answer a question(s) if you desire.

Person: _____

Date: _____

Session: _____

PART 1:

The following items describe various aspects of the situation which you just completed. Read each item carefully, then CIRCLE your response on the scale to the right of the item. If you are in complete agreement with the item, Circle "SA" for Strongly Agree. If you completely disagree with it, circle "SD" for Strongly Disagree. If you feel less strongly about the item in either direction, simply circle the response that best describes your feelings about it.

RESPONSES

	Strongly Disagree	Disagree to some Degree	Neither agree nor Disagree	Agree to some Degree	Strongly Agree
1. How much I was paid depended, in part, upon my supervisor's opinion about my performance. . .	SD	D	N	A	SA
2. How much my supervisor earned depended, in part, upon my performance. . .	SD	D	N	A	SA
3. I found the feedback from my supervisor very helpful. . .	SD	D	N	A	SA
4. My supervisor was able to judge my performance quite well.	SD	D	N	A	SA
5. The feedback that I received about my performance was quite specific. . .	SD	D	N	A	SA
6. I thought that my performance was somewhat better than my supervisor said it was. .	SD	D	N	A	SA
7. The feedback from my supervisor gave me some good ideas about how to improve my performance. . .	SD	D	N	A	SA

RESPONSES

	Strongly Disagree	Disagree to some Degree	Neither Agree nor Disagree	Agree to some Degree	Strongly Agree
8. The feedback from my supervisor was fair. . . .	SD	D	N	A	SA
9. My supervisor under-estimated my performance. . . .	SD	D	N	A	SA
10. My supervisor was very helpful. . . .	SD	D	N	A	SA
11. My supervisor was a good supervisor	SD	D	N	A	SA
12. My supervisor was a good judge of my performance. . . .	SD	D	N	A	SA
13. I would recommend my supervisor to others	SD	D	N	A	SA
14. I would choose my supervisor to supervise me on future jobs like this	SD	D	N	A	SA
15. The feedback from my supervisor was too general.	SD	D	N	A	SA
16. My supervisor's evaluation of my performance was accurate.	SD	D	N	A	SA
17. I tried harder after the break.	SD	D	N	A	SA
18. I wanted to work harder after I was told how I did the first work period. . . .	SD	D	N	A	SA
19. The feedback I received motivated me to work harder	SD	D	N	A	SA
20. I set specific goals for my performance	SD	D	N	A	SA

	Strongly Disagree	Disagree to some Degree	Neither Agree nor Disagree	Agree to some Degree	Strongly Agree
21. I only set specific goals after the break.	SD	D	N	A	SA
22. After the break, I set goals about the number of worksheets to complete. . . .	SD	D	N	A	SA
23. After the break, I set goals related to the accuracy of my performance. . . .	SD	D	N	A	SA

PART II

In this section, the format of the items changes. For each item, circle the response that best describes what you believe. Answer all items.

1. Prior to the break, compared to others, my performance in terms of the number of prices recorded, could best be described as:

Well above average 1 2 3 4 5 6 7 Well above average

2. Prior to the break, compared to others, my performance in terms of the number of errors I made, could best be described as:

Many more errors than average	1 2 3 4 5 6 7	Many fewer errors than average
-------------------------------	---------------	--------------------------------

3. Prior to the break, my overall performance as compared to others who have worked on this task, could best be described as:

Well below average 1 2 3 4 5 6 7 Well above average

4. Prior to the break, how much of your overall performance was due to your skill and ability to do work like this?

None at all 1 2 3 4 5 6 7 All of it

5. Prior to the break, how much of your performance was due to the difficulty of the task?

None at all 1 2 3 4 5 6 7 All of it

6. Prior to the break, how much of your performance was just due to beginners luck (either good luck or bad whatever the case may have been for you)?

None at all 1 2 3 4 5 6 7 All of it

7. Prior to the break, how much of your performance was due to how hard you worked?

None at all 1 2 3 4 5 6 7 All of it

8. How do you think your performance after the break compared to that before the break?

Much poorer Same Much Better

1 2 3 4 5 6 7

If your response to the previous item (Item 8) was any response EXCEPT "4", please answer the following four items on the appropriate scales.

My performance changed after the break because

9. I learned new skills

Not at all true 1 2 3 4 5 6 7 Very true

10. My luck changed

Not at all true 1 2 3 4 5 6 7 Very true

11. I worked harder

Not at all true 1 2 3 4 5 6 7 Very true

12. The job changed

Not at all true 1 2 3 4 5 6 7 Very true

University of Washington
Catalogue Order Study
Supervisor's Questionnaire

This questionnaire contains several sets of questions related to your beliefs and attitudes about your job as a supervisor and about your subordinates. Please read each item carefully and answer it on the scale provided. For ease of understanding, the items have been grouped into three parts. Please turn the page and complete the items as indicated. You are free to not answer a question(s) if you desire.

PART I: Feedback

We would like you to give us some feedback for each of your subordinates. Two issues are involved. First, what overall performance feedback would you give to each of the following workers? Please check the statement that seems most appropriate for each worker. Choose only one statement for each worker. That is place only one check in each column for a total of 3 checks. These three checks may or may not be in the same rows.

PART I: Overall Feedback

Worker			
A	B	C	
—	—	—	1. You are certainly performing well. Keep up the good work.
—	—	—	2. You have done very well. However, I think you can do better if you try.
—	—	—	3. You're doing about what is expected on the job, however you could do a little better.
—	—	—	4. You're not doing too bad on this job although others have done better.
—	—	—	5. Your performance is below what others have done. Perhaps you could work harder.
—	—	—	6. Your performance is not very good, you really need to put more into it.

PART II: Performance Review

Look back at the performance records you prepared earlier. From these records, record the Total number of sheets completed and the errors for Worker _____.

<u>Worker</u>	<u>Items Completed</u>	<u>Errors</u>
_____	_____	_____

Now, answer the following items for Worker _____.

Note: You are to compare this worker to all others who have completed this task NOT just the other two workers. The percentile on the Performance Evaluation Table shows you how other workers have done.

1. Compared to the other workers, how much ability at cataloguing do you think this worker had?
Much less 1 2 3 4 5 6 7 A great deal more
2. Compared to the other workers, how much effort do you think this worker exerted in cataloguing?
Much Less 1 2 3 4 5 6 7 A great deal more
3. Compared to the other workers how difficult do you think the task was for this worker:
Much Less Difficult 1 2 3 4 5 6 7 Much More Difficult
4. To what extent do you think this worker's performance level can be attributed to luck or chance circumstances?
Little Luck 1 2 3 4 5 6 7 Lots of Luck
5. How willing would you be to have this worker working for you again?
Unwilling 1 2 3 4 5 6 7 Willing
6. How pleasant or unpleasant was it to supervise this worker?
Unpleasant 1 2 3 4 5 6 7 Pleasant
7. Overall worker evaluation
A. Quality of work (completeness, accuracy, neatness, thoroughness)
Unsatisfactory 1 2 3 4 5 6 7 Outstanding

PART II (cont.)

B. Quantity of work (use of time, volume of work accomplished,
productivity level)

Unsatisfactory 1 2 3 4 5 6 7 Outstanding

C. Job knowledge (understanding of job procedures and methods)

Unsatisfactory 1 2 3 4 5 6 7 Outstanding

D. Overall evaluation of work performance

Unsatisfactory 1 2 3 4 5 6 7 Outstanding

PART II: Performance Review

Look back at the performance records you prepared earlier. From these records, record the Total number of sheets completed and the errors for Worker _____.

Worker	Items Completed	Errors
_____	_____	_____

Now, answer the following items for Worker _____.

Note: You are to compare this worker to all others who have completed this task NOT just the other two workers. The percentile on the Performance Evaluation Table shows you how other workers have done.

1. Compared to the other workers, how much ability at cataloguing do you think this worker has?

Much less 1 2 3 4 5 6 7 A great deal more

2. Compared to the other workers, how much effort do you think this worker exerted in cataloguing?

Much less 1 2 3 4 5 6 7 A great deal more

3. Compared to the other workers how difficult do you think the task was for this worker:

Much Less Difficult 1 2 3 4 5 6 7 Much More Difficult

4. To what extent do you think this worker's performance level can be attributed to luck or chance circumstances?

Little Luck 1 2 3 4 5 6 7 Lots of Luck

5. How willing would you be to have this worker working for you again?

Unwilling 1 2 3 4 5 6 7 Willing

6. How pleasant or unpleasant was it to supervise this worker?

Unpleasant 1 2 3 4 5 6 7 Pleasant

7. Overall worker evaluation

A. Quality of worker (completeness, accuracy, neatness, thoroughness)

Unsatisfactory 1 2 3 4 5 6 7 Outstanding

B. Quantity of work (use of time, volume of work accomplished, productivity level)

Unsatisfactory 1 2 3 4 5 6 7 Outstanding

PART II (cont.)

C. Job knowledge (understanding of job procedures and methods)

Unsatisfactory 1 2 3 4 5 6 7 Outstanding

D. Overall evaluation of work performance

Unsatisfactory 1 2 3 4 5 6 7 Outstanding

PART II: Performance Review

Look back at the performance records you prepared earlier. From these records, record the Total Number of sheets completed and the errors for Worker _____.

Worker	Items Completed	Errors
_____	_____	_____

Now, answer the following items for Worker _____.

NOTE: You are to compare this worker to all others who have completed this task NOT just the other two workers. The percentile on the Performance Evaluation Table shows you how other workers have done.

1. Compared to the other workers, how much ability at cataloguing do you think this worker has?

Much Less 1 2 3 4 5 6 7 A great deal more

2. Compared to the other workers, how much effort do you think this worker exerted in cataloguing?

Much Less 1 2 3 4 5 6 7 A great deal more

3. Compared to the other workers how difficult do you think the task was for this worker:

Much Less Difficult 1 2 3 4 5 6 7 Much More Difficult

4. To what extent do you think this worker's performance level can be attributed to luck or chance circumstances?

Little Luck 1 2 3 4 5 6 7 Lots of Luck

5. How willing would you be to have this worker working for you again?

Unwilling 1 2 3 4 5 6 7 Willing

6. How pleasant or unpleasant was it to supervise this worker?

Unpleasant 1 2 3 4 5 6 7 Pleasant

7. Overall worker evaluation

A. Quality of work (completeness, accuracy, neatness, thoroughness)

Unsatisfactory 1 2 3 4 5 6 7 Outstanding

B. Quantity of work (use of time, volume of work accomplished, productivity level)

Unsatisfactory 1 2 3 4 5 6 7 Outstanding

PART II (cont.)

C. Job knowledge (understanding of job procedures and methods)

Unsatisfactory 1 2 3 4 5 6 7 Outstanding

D. Overall evaluation of work performance

Unsatisfactory 1 2 3 4 5 6 7 Outstanding

PART II Supplementary Questions on Performance

1. How much power did you feel you had in this situation?

Very Little 1 2 3 4 5 6 7 A great deal

2. To what extent did you feel that your performance was dependent on your subordinate's work production?

Not at all 1 2 3 4 5 6 7 Very challenging

3. How challenging was the task of supervision?

Not at all 1 2 3 4 5 6 7 Very challenging

4. Imagine you can give each worker a bonus or dock his/her pay. The value of these monetary rewards varies from -\$1.50 to +\$1.50. How much do you want each worker to get? Place a number representing the amount you think is appropriate in each box.

A

B

C

_____ _____ _____

This completes Part II. Please check back to
be sure you rated all three workers before
continuing to the next section. If you rated
all three, turn the page.

PART III: Recommendations to next superior for each worker. If another supervisor were taking over what would you tell him/her?

Worker _____

Circle your response.

1. Give a brief training session

Do Not Recommend 1 2 3 4 5 6 7 Highly Recommend

2. Pay more per hour

Do Not Recommend 1 2 3 4 5 6 7 Highly Recommend

3. Make pay dependent upon the number of items coded

Do Not Recommend 1 2 3 4 5 6 7 Highly Recommend

4. Watch him/her closely

Do Not Recommend 1 2 3 4 5 6 7 Highly Recommend

5. Select him/her over another if you have a chance to choose

Do Not Recommend 1 2 3 4 5 6 7 Highly Recommend

6. Based on my experience this workers performance can best be described as

6	5	4	3	2	1
Excellent	Good	Above Average	Average	Below Average	Very Poor

PART III: Recommendations to next superior for each worker. If another supervisor were taking over what would you tell him/her?

Worker _____

Circle your response.

1. Give a brief training session

Do Not Recommend 1 2 3 4 5 6 7 Highly Recommend

2. Pay more per hour

Do Not Recommend 1 2 3 4 5 6 7 Highly Recommend

3. Make pay dependent upon the number of items coded

Do Not Recommend 1 2 3 4 5 6 7 Highly Recommend

4. Watch him/her closely

Do Not Recommend 1 2 3 4 5 6 7 Highly Recommend

5. Select him/her over another if you have a chance to choose

Do Not Recommend 1 2 3 4 5 6 7 Highly Recommend

6. Based on my experience this workers performance can best be described as

6 5 4 3 2 1

Excellent	Good	Above Average	Average	Below Average	Very Poor
-----------	------	---------------	---------	---------------	-----------

PART III: Recommendations to next superior for each worker. If another supervisor were taking over what would you tell him/her?

Worker _____

Circle your response.

1. Give a brief training session

Do Not Recommend 1 2 3 4 5 6 7 Highly Recommend

2. Pay more per hour

Do Not Recommend 1 2 3 4 5 6 7 Highly Recommend

3. Make pay dependent upon the number of items coded

Do Not Recommend 1 2 3 4 5 6 7 Highly Recommend

4. Watch him/her closely

Do Not Recommend 1 2 3 4 5 6 7 Highly Recommend

5. Select him/her over another if you have a chance to choose

Do Not Recommend 1 2 3 4 5 6 7 Highly Recommend

6. Based on my experience this workers performance can best be described as

6 5 4 3 2 1

Excellent	Good	Above Average	Average	Below Average	Very Poor
-----------	------	---------------	---------	---------------	-----------

As with Part II, check to be sure
you rated all 3 workers for Part III.

PERFORMANCE RECORD

Worker A

Worker B

Worker C

First 10 Minutes

No. Completed _____

No. of Errors _____

Second 10 Minutes

No. Completed _____

No. of Errors _____

Third 10 Minutes

No. Completed _____

No. of Errors _____

Overall

Total No. Completed _____

Total No. of Errors _____